

## ABSTRACT

A system and method for generating white light involves using a combination of white, red, green, and blue LEDs to produce white light and adjusting the emitted  
5 light in response to feedback signals. A light system has a light source that includes at least one white LED and multiple color LEDs and a spectral feedback control system configured to detect light that is output from the light source and to adjust the light that is output from the light source in response to the light detection. The spectral feedback control system may include a color sensor  
10 configured to provide color-specific feedback signals, a controller configured to generate color-specific control signals in response to the color-specific feedback signals, and a driver configured to generate color-specific drive signals in response to the color-specific control signals.